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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,195	03/06/2002	Andrew S. Kadah	430.021PA	6357

7590 10/09/2003
Bernhard P. Mollrem, Jr.
333 East Onondaga Street
Syracuse, NY 13202

EXAMINER

SMITH, TYRONE W

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/091,195

Applicant(s)

KADAH, ANDREW S.

Examin r

Tyrone W Smith

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☒ Claim(s) 13,17,19 and 20 is/are rejected.
- 7) ☒ Claim(s) 14-16 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 13 and 20 objected to because of the following informalities: It has been held the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. .
Appropriate correction is required.

2. Claims 1-12 allowed.

3. The following is an examiner's statement of reasons for allowance: The prior art(s) of record does not disclose only or in combination the method of the components used for the invention.

Regarding Claim 1. The first and second controlled switch having a second terminal, a control input, diode connected in shunt across the power terminal, a power capacitor having terminals connected to the second power terminal of the first and second controlled switched elements.

Regarding Claim 8. The first and second controlled switch having a second terminal, a control input, diode connected in shunt across the power terminal, a power capacitor having terminals connected to the second power terminal of the first and second controlled switched elements, a first and second power capacitor having a first and second terminal as explained and expounded on in claims 8 of the present invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the

issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Moreira et al (6051952) in view of Wills et al (5252905).

Regarding Claims 13 and 20. Moreira discloses a electric motor speed and direction controller and method which includes a single phase induction motor (Figure 2 # 104), AC line (Figure 1 # 100) connected to output voltage/frequency to the load/motor, a variable drive circuit/power switching circuit and control circuit (Figure 2 # 102 and 106) for storing and switching a portion of the line power and applying line power to the load/motor. Further, Moreira discloses the following steps (a) input AC power being applied to the load/motor (Figure 1 # 100); (b) input AC power being applied to the load/motor with current added at portions of the waveform to adjust the AC waveform at the line frequency (abstract; column 5 lines 38-57); (c) a different or reshaped waveform applied to the load/motor at a frequency that is different from the line frequency (abstract; column 5 lines 38-67 and column 6 lines 1-44; Figure 12). However, Moreira does not disclose a control circuit having a sensor or similar with input coupled to the output of the load/motor for monitoring and controlling the power applied to the load/motor.

Wills discloses a driving system for single-phase AC induction motor, which includes a controller (Figure 1 # 9) and phase detector/sensor (Figure 1 # 49) coupled to the load/motor

output for monitoring and controlling the waveform and frequency of the power applied to the load/motor (column 5 lines 31-68 and column 6 lines 1-39).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Moreira's a electric motor speed and direction controller and method with Wills invention of a driving system for single-phase AC induction motor. The advantage of combining the two would provide the system that operates an induction motor lower than and higher than synchronous frequencies. In doing so, provide a simple methodology and reduce part count motor controller for appliances and other similar apparatus's.

5. Claims 17 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkerson (5283726) in view of Moreira (6051952).

Regarding Claims 17 and 19. Wilkerson discloses an AC line current controller which includes a first and second SC line power source (Figure 1 # 11 and 12) and a controlled switched bridge having a first and second AC inputs and DC terminal of the switched bridge element (Figure 1 # 20). However, Wilkerson does not disclose a control circuit for providing gating signals for selectively gating the switch element of the controlled switch bridge and AC conductors coupling across the armature of the induction motor.

Moreira discloses an electric motor speed and direction controller and method, which includes a control circuit (Figure 1 # 106) for providing gating signals for selectively gating the switch element of the controlled switch bridge (Figure 2 # 102) and AC conductors coupling across the armature of the induction motor (Figure 1 # 106 item W2).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Moreira's a electric motor speed and direction controller and method with Wilkerson's AC line current controller. The advantage of combining the two would provide the system that

operates an induction motor lower than and higher than synchronous frequencies. In doing so, provide a simple methodology and reduce part count motor controller for appliances and other similar apparatus's.

6. Claims 14-16 and 18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tyrone W Smith whose telephone number is 703-306-5987. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi, can be reached on (703) 308-3370. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Tyrone Smith
Patent Examiner

Art Unit 2837


ROBERT NAPPI
SUPERVISORY PATENT EXAMINER